WHAT IS CLAIMED IS:

1. An information recording and reproducing apparatus for optically recording/reproducing information on/from an information recording medium having a plurality of information layers by concentrating a light beam on tracks of each information layer, comprising:

an optical receiving device for receiving a reflected light from said each information layer to output a light receiving signal on the basis of a projected image formed on a light receiving surface thereof;

a tracking error detecting device for detecting a tracking error on the basis of said light receiving signal;

a rotating device for rotating one projected image on said light receiving surface at a predetermined angle with respect to another projected image, said one projected image corresponding to a reflected light from a target information layer for recording/reproducing, said another projected image corresponding to a reflected light from another information layer except said target information layer.

2. The information recording and reproducing apparatus according to claim 1, wherein

said rotating device includes an astigmatism generation device for generating astigmatism in passing reflected light,

said astigmatism generation device is arranged such that its astigmatism direction in said reflected light is inclined at an angle corresponding to said predetermined angle of said one projected image to a track direction, and

said optical receiving device is arranged between two caustic curve positions of said reflected light from said target information layer and arranged in a position farther or nearer than caustic curve positions of said reflected light from said another information recording layer.

3. The information recording and reproducing apparatus according to claim 2, wherein

said astigmatism generation device comprises a cylindrical lens having a permeable plain surface perpendicular to the axis of said reflected light and is arranged such that its astigmatism direction in said reflected light is inclined at 45 degree to said track direction;

said optical receiving device is segmented into two sections by a parting line perpendicular to said track direction, and

said tracking error detecting device detects a tracking error on the basis of the difference between light receiving signals respectively output from said two sections.